

REMARKS

Claims 1-6 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent No. 6,342,993 to Sato in view of United States Patent No. 5,491,600 to Chen et al. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the cited references fail to disclose or suggest all of the features of the present invention. Specifically, neither Sato nor Chen et al., alone or in combination, disclose or suggest a magneto-resistive magnetic sensor that includes, *inter alia*, a pair of electrodes “provided on said pair of magnetic regions so as to extend upon a top surface of said magneto-resistive structure and so as to oppose each other across a central part of said magneto-resistive structure,” as defined in independent Claim 1.

One example of an embodiment of the present invention is shown in Applicants’ Figure 3H, which includes electrodes (117A and 117B), which each have overhang parts that extend on the top surface of the magneto-resistive structure (MR). In contrast to the present invention, which is an overlay-type sensor, the device of Sato is an abutted-type sensor, and it therefore lacks the claimed overhang parts. As shown in Figure 4 of Sato, the electrodes 8 abut the sides of the MR element 6, but these electrodes do not “extend on a top surface of said magneto-resistive structure and . . . oppose each other across a central part of said magneto-resistive structure,” as now defined in amended independent Claim 1. Nor is there any suggestion that Sato should be modified into such a configuration. Additionally, as previously discussed in Amendment B, the sensor of the Chen et al.

reference is not an overlay-type sensor, but is more like an abutted-type sensor. Accordingly, as all of the features of Claim 1 are not disclosed or suggested in the cited references, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 over the combination of Sato and Chen et al.

Claims 2-6 all depend, directly or indirectly, from independent Claim 1, and therefore include all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claims 2-6 under Sato in view of Chen et al. be withdrawn considering the above remarks directed to independent Claim 1.

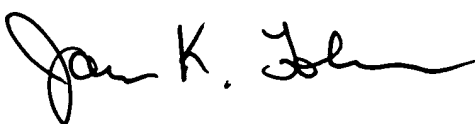
Claim 7 stands rejected under 35 U.S.C. §103 as being unpatentable over United States Patent No. 6,342,993 to Sato in view of United States Patent No. 5,491,600 to Chen et al. and further in view of United States Patent No. 5,883,764 to Pinarbasi. Applicants respectfully traverse this rejection.

Claim 7 depends from independent Claim 1, and therefore includes all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request that the §103 rejection of dependent Claim 1 under the combination of Sato, Chen et al. and Pinarbasi be withdrawn considering the above remarks directed to independent Claim 1, and also because Pinarbasi does not remedy the deficiency discussed above, nor was it relied upon for this feature.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference would aid in the prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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